

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently Amended) An isolated polypeptide antibody or functional fragment thereof that specifically binds to a neoplastic cell or a cell of a pre-cancerous lesion, but does not specifically bind to a normal cell, wherein said isolated polypeptide antibody or functional fragment thereof comprises amino acids ~~28-32, 51-53, and 90-100 of the sequence of a light chain variable region comprising a sequence shown in SEQ ID NO:29~~, and wherein said normal cell is not a cell of the glomerular, fascicular zone of the adrenal gland or an epithelial cell of the collection tubes of the kidney.
2. (Currently Amended) The isolated polypeptide antibody or functional fragment thereof of claim 1, wherein said polypeptide antibody or functional fragment thereof further comprises a heavy chain variable region comprising amino acids 11-18, 36-43, and 82-104 of the sequence of SEQ ID NO:28.
- 3-4. (Cancelled)
5. (Currently Amended) The isolated polypeptide antibody or functional fragment thereof of claim 1, wherein said polypeptide antibody or functional fragment thereof is capable of inducing apoptosis of said neoplastic cell or said cell of said pre-cancerous lesion, but does not induce apoptosis of said normal cell.
6. (Currently Amended) The isolated polypeptide antibody or functional fragment thereof of claim 1, wherein said neoplastic cell is selected from the group consisting of Barrett's tumors

and tumors of the esophagus, stomach, intestine, rectum, liver, gallbladder, pancreas, lungs, bronchi, breast, cervix, prostate, heart, ovary, and uterus.

7. (Currently Amended) The isolated polypeptide antibody or functional fragment thereof of claim 1, wherein said pre-cancerous lesion is selected from the group consisting of dysplasia of the gastric mucosa, interstitial metaplasia of the stomach, inflammation of the gastric mucosa which is associated with the bacteria *Helicobacter pylori*, tubular and tubulovillous adenomas of the stomach, tubular adenoma of the colon, villous adenoma of the colon, dysplasia in ulcerative colitis, Barrett's dysplasia, Barrett's metaplasia of the esophagus, cervical intraepithelial neoplasia I, cervical intraepithelial neoplasia II, cervical intraepithelial neoplasia III, squamous epithelial metaplasia, squamous epithelial dysplasia of the bronchus, low grade and high grade prostate intraepithelial neoplasia (PIN), breast ductal carcinoma in situ (D-CIS), and breast lobular carcinoma in situ (L-CIS).

8. (Currently Amended) The isolated polypeptide antibody or functional fragment thereof of claim 1, wherein said polypeptide antibody or functional fragment thereof is a functional fragment of an antibody selected from the group consisting of V_L, V_H, F_v, F_C, Fab, Fab', and F(ab')₂.

9. (Currently Amended) The isolated polypeptide antibody or functional fragment thereof of claim 1, wherein said polypeptide antibody or functional fragment thereof specifically binds to a polypeptide comprising the sequence of SEQ ID NO:6.

10. (Previously Presented) An isolated nucleic acid molecule comprising nucleic acids 31-54, 106-129, and 244-312 of the sequence of SEQ ID NO:26, and/or 82-96, 151-159, and or 268-300 of the sequence of SEQ ID NO:27.

11. (Cancelled)

12. (Cancelled)

13. (Previously Presented) A vector comprising the nucleic acid sequence of SEQ ID NO:26, or SEQ ID NO:27.

14. (Original) An isolated cell comprising the vector of claim 13.

15-57. (Cancelled)

58. (Currently Amended) An isolated antibody or functional fragment thereof that specifically binds to a neoplastic cell or a cell of a pre-cancerous lesion, but does not specifically bind to a normal cell, wherein the antibody or functional fragment comprises

a heavy chain comprising CDR1, CDR2, and CDR3 regions comprising amino acids 11-18, 36-43, and 82-104 of SEQ ID NO:28 respectively; and

a light chain comprising CDR1, CDR2, and CDR3 regions comprising amino acids 28-32, 51-53, and 90-100 of SEQ ID NO:29 respectively, and

wherein said normal cell is not a cell of the glomerular, fascicular zone of the adrenal gland or an epithelial cell of the collection tubes of the kidney.

59. (Currently Amended) The isolated antibody or functional antibody fragment of claim 58, wherein said antibody or functional antibody fragment is capable of inducing apoptosis of said neoplastic cell or said cell of said pre-cancerous lesion, but does not induce apoptosis of said normal cell.

60. (Currently Amended) The isolated polypeptide antibody or functional fragment thereof of claim 1, wherein said polypeptide antibody or functional fragment thereof is an antibody.

61. (New) The isolated antibody or functional fragment thereof of claim 1, wherein said antibody further comprises a heavy chain variable region comprising a sequence as shown in SEQ ID NO:28.

62. (New) An isolated antibody or functional fragment thereof, wherein said isolated antibody or functional fragment thereof comprises a light chain variable region comprising the sequence of SEQ ID NO:29 and a heavy chain variable region comprising the sequence of SEQ ID NO:28, wherein said antibody or functional fragment thereof is capable of inducing apoptosis of a neoplastic cell or a cell of a pre-cancerous lesion.

63. (New) An isolated antibody or functional fragment thereof, wherein the antibody or functional fragment comprises

a heavy chain comprising CDR1, CDR2, and CDR3 regions comprising amino acids 11-18, 36-43, and 82-104 of SEQ ID NO:28 respectively; and

a light chain comprising CDR1, CDR2, and CDR3 regions comprising amino acids 28-32, 51-53, and 90-100 of SEQ ID NO:29 respectively, and

wherein said antibody or functional antibody fragment is capable of inducing apoptosis of a neoplastic cell or a cell of a pre-cancerous lesion.